Thwing-Albert Instrument Company

More Than a Century of Testing Solutions

IDM instruments

Z-Directional

Vantage Tensile Tester

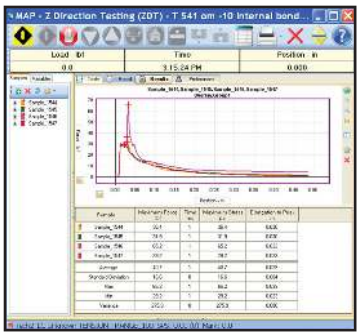
Thwing-Albert's ZDT Tester is a compact, precision PC-controlled instrument that measures the internal fiber bond strength of paper, paperboard, liner board and coated fine papers. Z-Directional force provides an indication of expected material performance relating to glue-bonding of carton corners and seams, delamination, and the use of high tack coatings. The ZDT Tester is a fully automated instrument that performs sample compression, dwell time and ZDT according to TAPPI T541. A self-adjusting test platen ensures uniform tension is applied to pull the sample apart.

Integrated Control

Utilizing cutting-edge technology, all electronics and controls are fully integrated into the test frame. No external control boxes or additional PC interface cards are required enabling the connection to a standard PC with a serial port. In order to maximize efficient use of lab space, the ZDT Tester is only 250 mm (10 in) wide and 419 mm (16.5 in) deep. A magnetic test-control keypad is easily moved to provide the most ergonomic positioning for the operator. Other benefits include one-touch auto zero and a software-based automatic calibration system.

Powerful Software

ZDT application software, provided with the unit, utilizes MAP™, a Windows®-based materials testing software package. ZDT software enables the user to quickly set-up test parameters including compression force, speed, dwell time and length of test. ZDT software also provides advanced capabilities for database management and reporting. Test comment fields allow the operator to enter information after the completion of the test indicating test failure or other pertinent details. ZDT software will automatically write result data to other software packages including Access™ and Excel™.



▲ Overlay test curves for a quick comparison

▲ ZDT Tester measures the internal bond strength of paperboard.

Features

- ZDT test software included
- Conforms to TAPPI T541
- Conforms to ISO 15754
- One USB Interface to a PC
- No PC interface cards
- Serial load cell interface
- Self-adjusting test platen
- Automatic electronic calibration
- Movable test control panel
- Side electronics panel for easy serviceability

Physical Specifications

	1750-2013*
Width	254 mm (10 in)
Depth	419 mm (16.5 in)
Height	800 mm (31.5 in)
Net Weight	51 kg (112 lb)
Crosshead Travel	584 mm (23 in)

*Above Dimensions do not include PC.

Test Platens

Upper (Self-Adjusting): 6.45 cm2 (1 in^2)
Lower: 63 mm x 63 mm (2.5 x 2.5 in)

Performance Data

Crosshead Guidance
Precision Ball Screw

Horizontal Clearance
Unlimited

Depth Clearance
89 mm (3.5 in)

Force Capacity
1 kN (225 lb)

Force Measurement
High precision 2 kN (450 lb) load cell

Force Accuracy

10% to 100% Load Capacity:
±0.25% Measuring Value

Less than 10% Load Capacity:
±0.025% of Load Cell Capacity

Force Resolution
16 Bit A/D to 0.1 N

Position Resolution
0.6 µm (0.00002 inch)

System Control
PC-Based with USB interface (No PC slave cards)

Specifications subject to change without notice.

Operating System
Windows® XP, Windows® 7, Windows® 8

Crosshead Speed
1 to 1000 mm/min (0.05 to 40 in/min)

Speed Accuracy
±0.1%

Safety Features
Emergency stop button, upper & lower limit switches with over-travel protection and load cell overload protection

Power Requirements
110 VAC, 50/60 Hz / 220/230 VAC, 50 Hz / 240 VAC, 50 Hz

Operating/Storage Environment

Air Temperature

Operating:	10° to 50° C	(50° to 122° F)
Storage:	-25° to 70° C	(-13° to 158° F)

Relative Humidity

Operating:	10% to 85% (Non-Condensing)
Storage:	5% to 90% (Non-Condensing)

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